

Multi-County Goods Movement Action Plan

San Diego County Action Plan



Metro



Prepared for:

**Los Angeles County Metropolitan Transportation Authority
California Department of Transportation
Orange County Transportation Authority
Riverside County Transportation Commission
San Bernardino Associated Governments
Southern California Association of Governments
Ventura County Transportation Commission
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April 30, 2008

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MULTI-COUNTY GOODS MOVEMENT ACTION PLAN
SAN DIEGO COUNTY PLAN

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Introduction

Purpose

This report outlines a Goods Movement Action Plan for San Diego County, California, part of a broader Multi-County Goods Movement Action Plan (MCGMAP) developed collectively by the Los Angeles County Metropolitan Transportation Authority (Metro), Orange County Transportation Authority (OCTA), Riverside County Transportation Commission (RCTC), San Bernardino Associated Governments (SANBAG), San Diego Association of Governments (SANDAG), Ventura County Transportation Commission (VCTC), Southern California Association of Governments (SCAG), and the California Department of Transportation (Caltrans). The MCGMAP contains strategies to support the efficient movement of goods without disproportionately impacting local communities, neither the environment, nor the transportation network. The MCGMAP is also a regional framework for goods movement initiatives.

This report examines the key issues that impact San Diego County from a goods movement standpoint. It examines the plans and proposals that are being pursued to resolve the stated issues, and new specific actions and strategies that should become a focus for the county. It is important to note that this report builds on a large body of work that has been researched and developed over the past few years, all of which collectively address a comprehensive range of goods movement issues.

The Multi-County Goods Movement Action Plan has recommended four primary action sets for goods movement within the region. The action sets are:

- ◆ Action Set 1: Accelerate Regional Environmental Mitigation
- ◆ Action Set 2: Relieve Congestion and Increase Mobility
- ◆ Action Set 3: Improve Operational Efficiency
- ◆ Action Set 4: Develop Equitable Public/ Private Funding Strategy

Current and future projects, relationships, and activities of San Diego County address these four primary action sets. The document concludes with an explanation of how the county's activities support these four action sets.

Other efforts will likely address new and existing issues as they arise. This report is intended to focus on specific actions to address the most significant goods movement issues for the county that have been presented to date. This report is not intended to be a full and complete glossary of every issue.

Background

The following is a list of goods movement studies the county has participated in:

- ◆ San Diego Regional Goods Movement Plan, November 2007
- ◆ Port of San Diego Freeway Access Study, October 2007
- ◆ Interstates 805 South Corridor Study, June 2005
- ◆ I-15 Transportation Concept Report, September 2000
- ◆ Transportation Concept Report- Interstate 5, May 1997

In addition San Diego County has had a history of Mexican border studies. Reports furnished for the MCGMAP include:

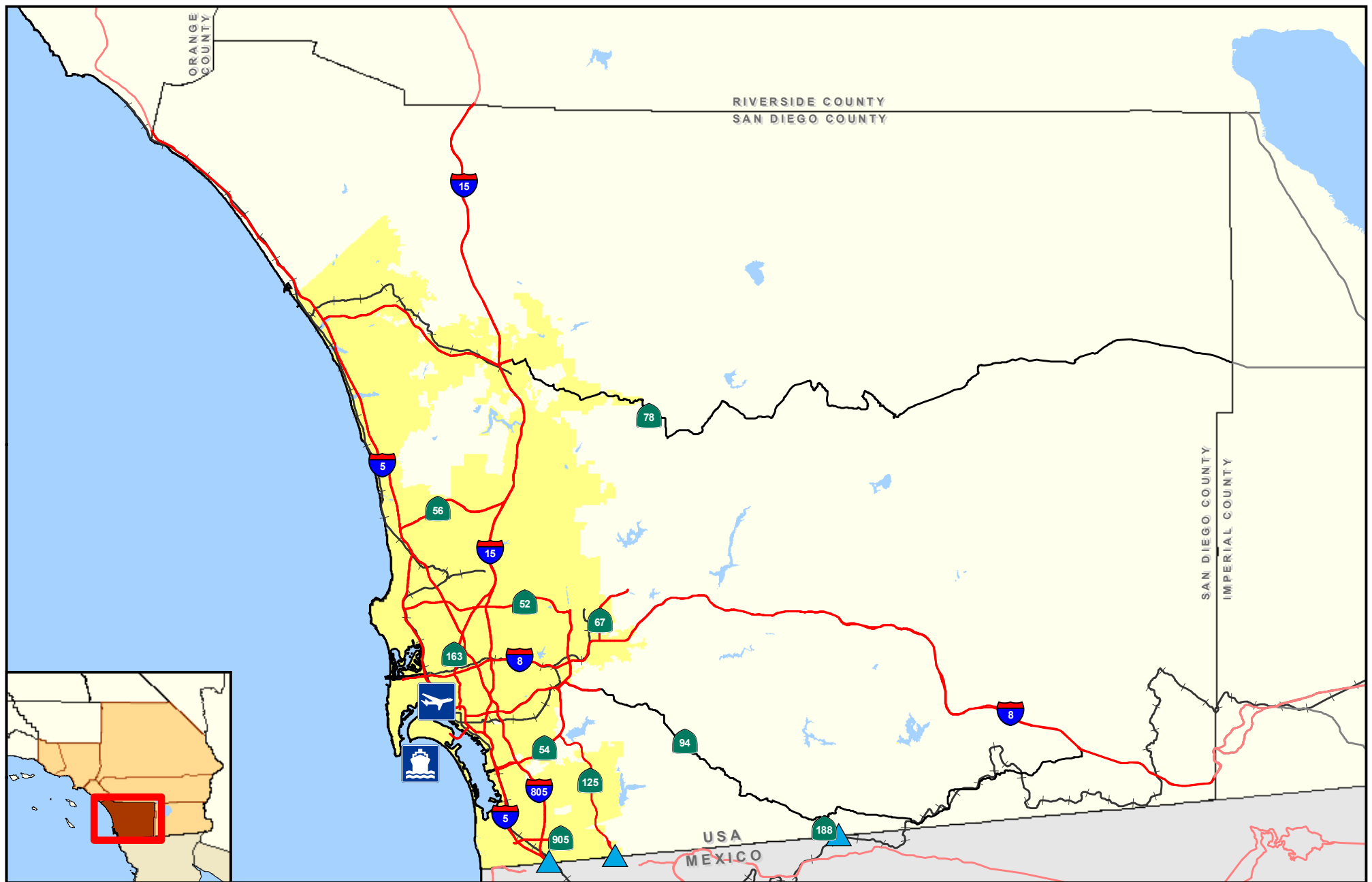
- ◆ California – Baja California Border Report, May 2006
- ◆ Economic Impact of Wait Times at the San Diego-Baja California Border, January 2006
- ◆ Feasibility of Opening an International Border Crossing at Jacumba – Jacume, June 2000









A map showing San Diego County and major infrastructure features is presented in Figure 1. San Diego County is in the southwest corner of the region. The county borders Orange County to the northwest, Riverside County to the northeast, Imperial County to the east, and Mexico to the south.

The three major freight contributors to the goods movement system in San Diego are the Port of San Diego, the San Diego Airport, and the ports of entry (POE) with Mexico. The ports of entry are San Ysidro, Otay Mesa, and Tecate. Otay Mesa East is a planned new POE.

The county's one major rail route comes down the coast from the north. This 62 mile stretch of track is owned by the Burlington Northern and Santa Fe (BNSF) Railway. The southern terminus is near the Port of San Diego. The San Diego and Imperial Valley (SDIV) railroad is a Class II Carrier and has been the freight operator on San Diego and Arizona Eastern (SDAE) railway since 1984. In 2001 the Carrizo Gorge Railway (CZRY) took over operations between Tijuana and Tecate, Mexico, and in 2002 was granted a contract to repair and operate the Desert Line linking with the Union Pacific (UP) Railroad in the Imperial Valley.

The Interstate highways in San Diego County are I-5, I-8, I-15, and I-805. Limited access state routes are the SR-52, SR-54, SR-56, SR-67, SR-78, SR-94, SR-125, SR-163, and SR-905. The flow of goods in the county is much more north-south than east-west. The infrastructure for the county is primarily in the western third of the county with only one major infrastructure feature crossing the eastern boundary with Imperial County. I-8 is the only feature with significant capacity that extends beyond the western third of the county.



-  Airport
-  Port
-  Port of Entry
-  Freeway
-  Urban Area
-  Highway
-  Mexico
-  Railroad

Multi-County Goods Movement Action Plan San Diego County

0 10 20 30 40
Miles



Sources:
SANDAG, SanGIS,
Caltrans District 11

Figure 1

Role

In 2006, the San Diego Customs District reported more than \$33 billion in international trade goods passed through the San Diego gateway. The U.S. – Mexico POE accounted for \$28.6 billion and the two maritime terminals of the Port of San Diego accounted for \$9 billion. The growth rate of trade at the San Diego Customs District is expected to parallel that of the Los Angeles District¹.

Trade with Mexico

The principal role of San Diego County is as a port of entry for Mexico. The border's total length is 1,951 miles (3,141 km), according to figures given by the International Boundary and Water Commission². The California border is approximately 142 miles and San Diego County's border is approximately 60 miles.

San Diego County's border is the most frequently crossed international border in the world, with some 350 million people crossing legally every year³. In California, San Diego County shares the role of port of entry with Imperial County. Of goods imported and exported from Mexico that pass through San Diego and Imperial County POEs, 57 percent originate in California outside the two border counties, 21 percent originate from somewhere else in the U.S., and 22 percent are from San Diego and Imperial Counties. San Diego is the dominant partner of the trade with 70 percent of the Mexican freight⁴.

In 2006, approximately \$29.8 billion in trade was handled by the Otay Mesa and Tecate POEs in San Diego County. Caltrans projects that the two million trucks crossing the border in 2003 will increase to 3.1 million trucks in 2010 and 5.6 million trucks by 2030⁵.

The border POEs and additional border features are presented in Figure 2.

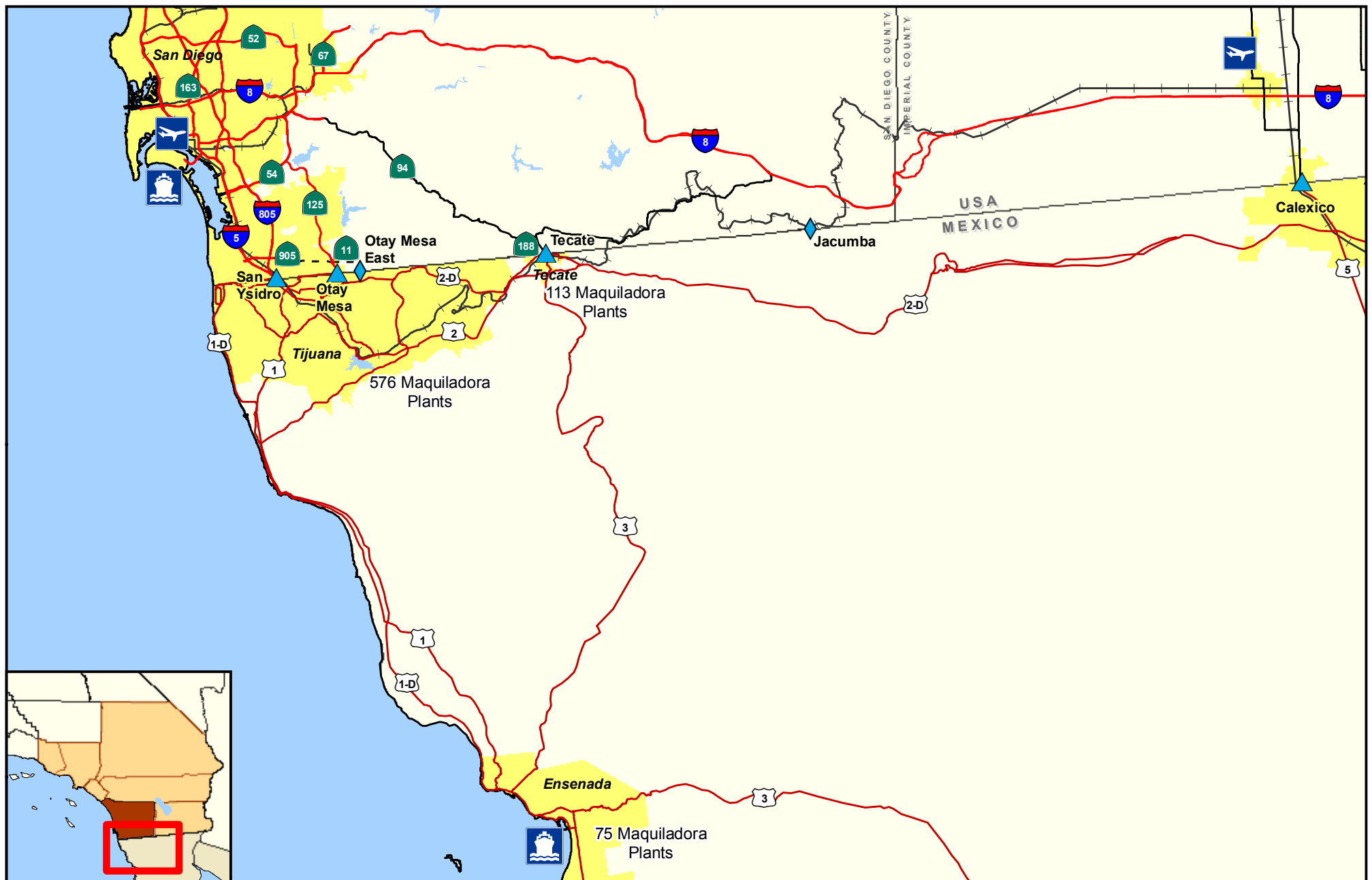
¹ Pathways For The Future: 2030 San Diego Regional Transportation Plan, November 2007, p. 6-37.

² The International Boundary and Water Commission, Its Mission, Organization and Procedures for Solution of Boundary and Water Problems.

³ Borders and Law Enforcement. U.S. Embassy Mexico.

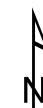
⁴ Caltrans – District 11 California/Mexico Briefing – March, 2004.

⁵ Pathways For The Future: 2030 San Diego Regional Transportation Plan, November 2007, p.6-38.



Multi-County Goods Movement Action Plan Border Area

0 10 20 30 40 Miles



Sources:
SANDAG, SanGIS,
Caltrans District 11

Figure 2

In 1999, Mexico surpassed Japan to become California's top export trade market. Mexico was second in total trade with the U.S., but is now third because China surpassed it as of 2006; however, the numbers are very close.

Table 1
Total Trade
Billions of U.S. dollars

	2004	2005	2006
Canada	445.43	499.29	533.67
Mexico	266.62	290.25	332.43
China	231.42	285.30	343.00
Japan	183.62	193.50	207.74

Source: U.S. Census Bureau, Foreign Trade Statistics, <<http://www.census.gov/foreign-trade/top/index.htm>>

Agreements with Mexico on trade include the 1987 General Agreement on Tariffs and Trade (GATT), and the North American Free Trade Agreement (NAFTA) ratified in 1993. In 1993, California identified a NAFTA Network (NAFTA-Net) of critical transportation corridors serving trade and traffic through POEs between California and Baja California⁶.

The network:

- ◆ Facilitates the movement of goods , services and information
- ◆ Insures a safe, efficient and secure cross border trucking
- ◆ Accommodates recent and anticipated growth in border related movement⁷

In the NAFTA-Net Fact Sheet of 1998, Caltrans identified the transportation corridors in San Diego which comprise the network⁸. These corridors will be the principal conduit for movement of goods and people as overall demand for transportation increases in and out of the state. The Fact Sheet identified SR-905, SR-125, SR-188, and SR-94 in San Diego County as part of the network. Additional freeways are shown in the California – Baja California Border Report. Figure 2 includes I-5, I-8, SR-11, I-15, SR-163, and I-805. Figure 3 reflects the highway network as well as the truck distribution flows at the border region, as shown in the California – Baja California Border Report.

⁶ Caltrans – District 11 California/Mexico Briefing – March, 2004

⁷ California – Baja California Border Report, May 2006 p. es-iii.

⁸ State of California - business, transportation and housing agency, Department of Transportation, fact sheet NAFTA NET, March 1998.

CALIFORNIA/MEXICO DISTRIBUTION OF TRUCKS

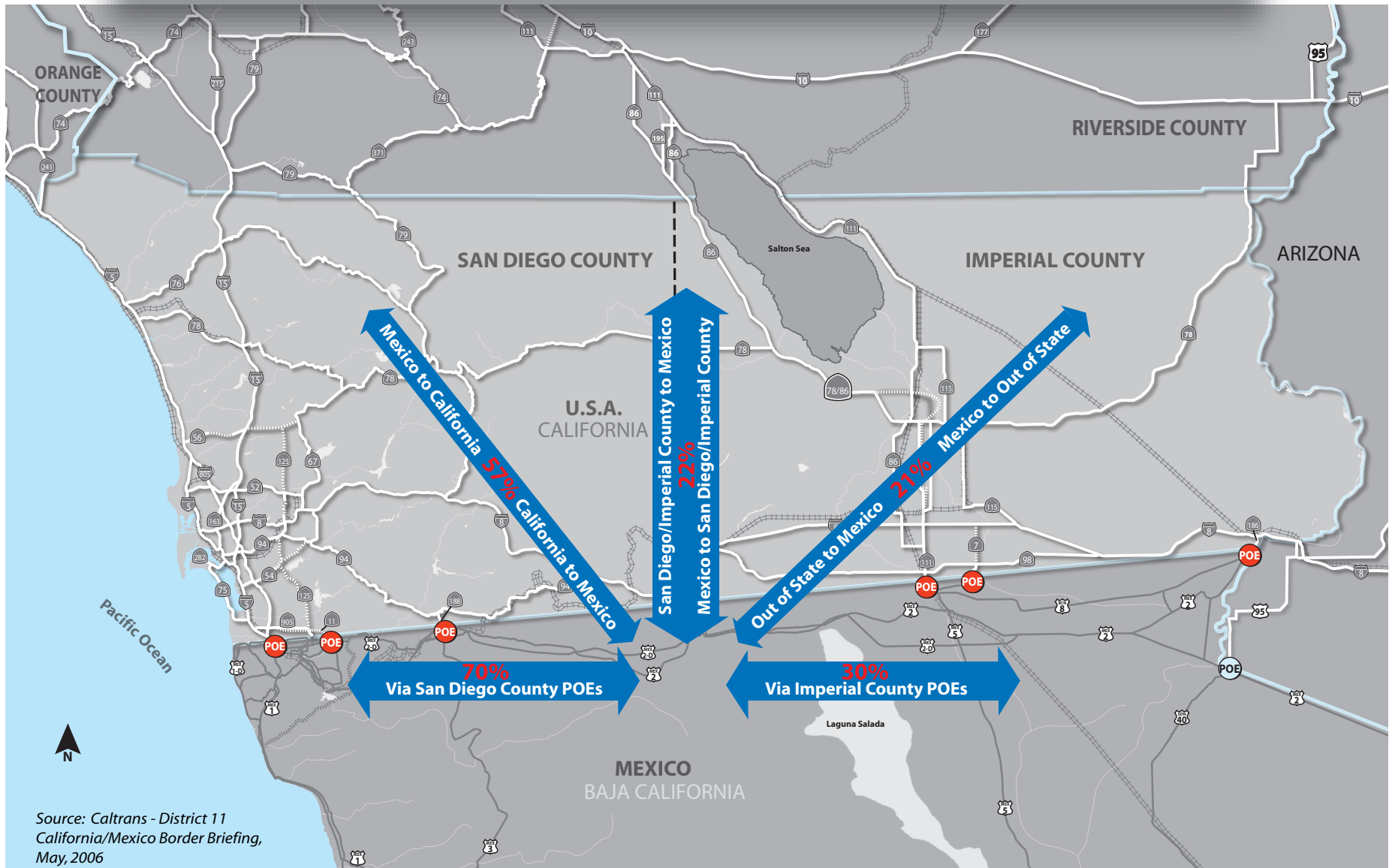


Figure 3

Maquiladora Program

The majority of the trade with Mexico is associated with the maquiladora manufacturing plants. A maquiladora or maquila is a factory that imports materials and equipment on a duty-free and tariff-free basis for assembly or manufacturing and then re-exports the assembled product; usually back to the originating country. The term "maquiladora", in the Spanish language, refers to the practice of millers charging a "maquila" or "miller's portion" for processing other people's grain⁹.

"Maquiladora" is primarily used to refer to factories in Mexican towns along the United States–Mexico border, but increasingly is used to refer to factories all over Latin America. Maquiladora factories encompass a variety of industries including electronics, transportation, textile, and machinery among others. Maquiladoras are 100 percent foreign-owned (usually by U.S. subsidiary companies) in most countries. Other countries such as Japan, Germany, and Korea have maquiladoras as well, but the majorities of them are located in Mexico and are associated with U.S. companies¹⁰.

Truck trips have increased steadily since 1997. This increase is mainly due to growth in the maquiladora industry along the California/Baja California Border. The number of maquiladora plants has grown from 178 to nearly 900, a 400 percent increase since 1978¹¹.

Port of San Diego

The port's two marine cargo facilities are Tenth Avenue Marine Terminal (TAMT) and National City Marine Terminal (NCMT). Both cargo terminals have on-dock rail facilities for rapid transfer of cargo to rail. In 2006, the two terminals handled approximately 3.5 million tons of cargo worth more than \$9 billion¹².

TAMT is a 96 acre multi-purpose facility offering modern dockside cool/frozen storage, break-bulk, dry/liquid bulk, small scale container operations, and warehousing services.

Principal inbound cargoes are refrigerated commodities, fertilizer, cement, break-bulk commodities, and forest products (including newsprint, cut paper, and cut sheet stock). Primary export cargoes include refrigerated cargo, break-bulk, and bulk commodities.

A state-of-the-art bulk loader is located at this terminal. The loader is used to export soda ash, sodium sulfate, borax, pyroborates, bicarbonate of soda and other bulk commodities.

In the past four years, total bulk tonnage has steadily increased from 157,000 metric tons to 744,000 metric tons annually. The National City Marine Terminal is a 125 acre complex and a

⁹ Wilson, Patricia A. Exports and Local Development: Mexico's New Maquiladoras. p. 139.

¹⁰ Hampton, Elaine. Globalization Legacy: A View of U.S. Factory Involvement in Mexican Education. p. 2.

¹¹ California – Baja California Border Report, May 2006 p. es-i.

¹² Pathways For The Future: 2030 San Diego Regional Transportation Plan, November 2007, p. 6-38.

primary port of entry for Honda, Acura, Volkswagen, Isuzu, Mitsubishi Fuso, and Hino Motors vehicles.

The terminal is capable of handling well over 500,000 vehicles per year. In 2007, approximately 400,000 motor vehicles were handled at NCMT for U.S. distribution.

Another primary commodity handled at this terminal is lumber, transported by barge and break bulk ships from the Pacific Northwest. The port has also handled export cattle and containers at the terminal.

Ship capacity at the Port of San Diego's NCMT needs to be expanded due to growing auto imports. Additional berth space will allow for two 700-foot car carrying vessels to berth simultaneously.

An aggressive international marketing effort is increasing cargo activity. The goal of the Maritime team is to attract niche cargoes, project cargo, maquiladora containers, vehicles, dry bulk commodities, liquid bulk, and year-round cold storage cargo. Target areas/countries include Latin America, Mexico, Pacific Rim/Southeast Asia, Australia, New Zealand, and Canada¹³.

Air Cargo

California's Global Gateway Development Program (GGDP) identifies San Diego International Airport (SDIA) as one of the priority air cargo gateways in California. Most air cargo in San Diego County is handled by SDIA. Air cargo activity has grown rapidly at SDIA, increasing at an average rate of 8.5 percent through 2000; slowing to a more moderate 4.3 percent annual rate. In 2005, SDIA handled more than 167,000 tons¹⁴. Air cargo projections are between 487,000 to 622,000 tons by 2030¹⁵.

Rail

BNSF is the major carrier in the county and its mainline extends from the border with Orange County down the coast to National City. The port of San Diego is the major freight supplier. In 2004 BNSF moved 2.8 million tons of freight and increase of 23.3 percent over 2003. BNSF also has a branch line between Escondido and Oceanside.

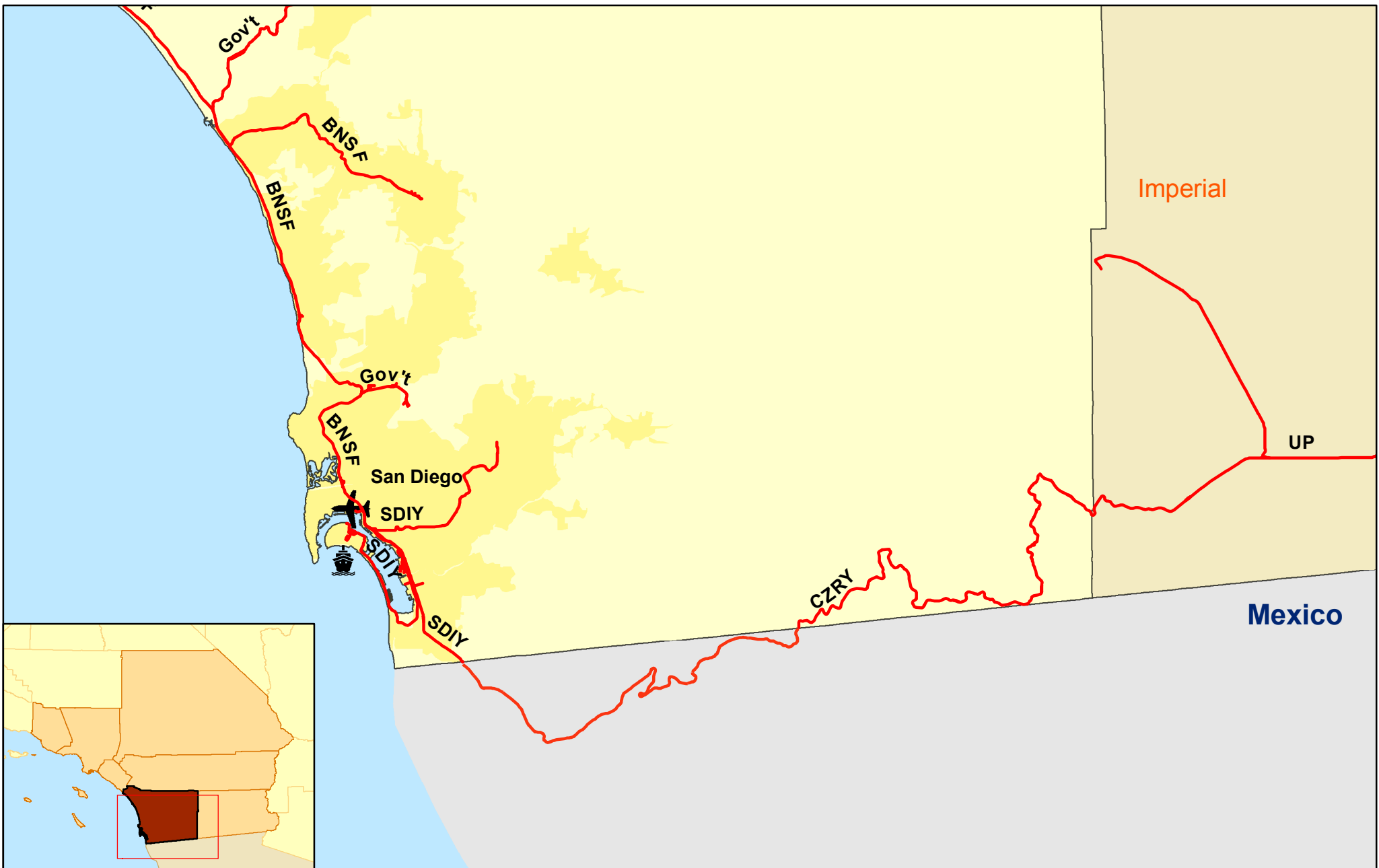
San Diego and Imperial Valley Railroad (SDIV) is a shortline operator on the San Diego and Arizona Eastern Railway track in the U.S. The Carrizo Gorge Railway (CZRY) is the SD&AE's operator in Mexico and the Imperial Valley. The SD&IV has been owned and operated by RailAmerica since 2000; it had been previously owned by RailTex (which RailAmerica acquired) and operated with the SDIV.






¹³ Port of San Diego 2006, <http://www.portofsandiego.org/sandiego_maritime/ms_factsheetinfo.asp>

¹⁴ Pathways For The Future: 2030 San Diego Regional Transportation Plan, November 2007, p. 6-37.

¹⁵ SANDAG RTP 2006 Financial Constrained Update.

The SDIV operated at one time on two lines but today operates on only one. At one time it operated from San Diego to Plaster City via Mexico, but today that line is operated by the Carrizo Gorge Railway. The SDIV still operates the San Diego to El Cajon Line. The railroad interchanges with the BNSF Railway operations in San Diego. Rail lines in San Diego County and the border area are shown in Figure 4.



-  Airports
-  Ports
-  Railroad
-  Urban Areas
-  Mexico

Multi-County Goods Movement Action Plan Rail Lines

0 10 20 40 Miles



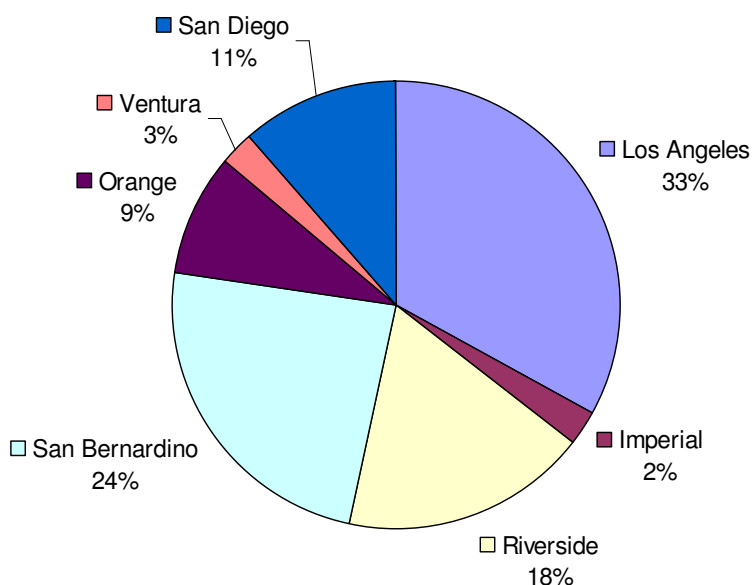
Sources:
StreetMap 2006
www.carrizogorgerailway.com

Figure 4

Trucks

Trucking volumes in San Diego County ranks 4th in the study area measured in terms of truck miles of travel (VMT). Truck VMT in 2003 was approximately 875 million, indicating truck volumes are significant. Figure 5 shows percentage of truck VMT in the study area by county.

Figure 5
2003 Percentage of Truck VMT in the MCGMAP Study Area
by County



Source: Truck Miles of Travel: California State Highway System 1988-2003, Caltrans 2005.

The following is a table of truck ADT along interstate and state routes at various locations. The locations are defined by the intersecting highway.

Table 2
San Diego County
2006 Truck ADT

Route	Junction	Truck ADT
I-5	SOUTH JCT. RTE. 805	1,976
I-5	JCT. RTE. 75 WEST	5,883
I-5	8TH STREET	9,500
I-5	JCT. RTE. 15 NORTH	10,300
I-5	JCT. RTE. 8/ROSECRANS	8,651
I-5	SAN DIEGO, JCT. RTE. 274	7,913
I-5	JCT. RTE. 78 EAST	9,797
I-5	BASILONE ROAD	10,500
I-8	JCT. RTE. 5/209	5,516
I-8	SAN DIEGO, JCT. RTE. 163	6,412
I-8	SAN DIEGO, JCT. RTE. 805	6,944
I-8	JCT. RTE. 15	7,920
I-8	GREENFIELD DRIVE	6,072
I-8	JCT. RTE. 79 NORTH, JAPATUL VALLEY ROAD	3,240
I-8	JCT. RTE. 94 SOUTH	1,970
I-15	JCT. RTE. 94	6,528
I-15	JCT. RTE. 8	10,590
I-15	JCT. RTE. 163	10,966
I-15	SAN DIEGO, MIRAMAR/ POMERADO ROADS	10,942
I-15	SAN DIEGO, POWAY ROAD	18,105
I-15	ESCONDIDO, SOUTH JUNCTION OF CENTRE CITY	13,135
I-15	VALLEY PARKWAY	13,206
I-15	SAN DIEGO/RIVERSIDE COUNTY LINE	8,573
SR-52	JCT. RTE. 5	3,168
SR-52	SAN DIEGO, GENESEE AVENUE	3,036
SR-52	JCT. RTE. 805	3,007
SR-52	SANTO ROAD	1,976
SR-54	JCT. RTE. 805	3,042
SR-54	REO DRIVE	2,223
SR-54	JCT. RTE. 94	2,340
SR-67	BRADLEY AVENUE	5,427
SR-67	WINTER GARDEN BOULEVARD	1,428
SR-67	POWAY ROAD	2,024
SR-67	RAMONA, JCT. RTE. 78	1,740
SR-75	SAN DIEGO, JCT. RTE. 5	2,160
SR-75	CORONADO, POMONA AVENUE	485
SR-75	JCT. RTE. 282	874

Table 2
San Diego County
2006 Truck ADT

Route	Junction	Truck ADT
SR-75	JCT. RTE. 5	2,128
SR-76	JCT. RTE. 5	2,288
SR-76	JCT. RTE. 15	3,375
SR-76	VALLEY CENTER ROAD	1,677
SR-76	JCT. RTE. 79	194
SR-78	OCEANSIDE, EL CAMINO REAL	5,294
SR-78	VISTA, MELROSE DRIVE	5,236
SR-78	ESCONDIDO, JCT. RTE. 15	4,718
SR-78	ESCONDIDO, CENTRE CITY PARKWAY	4,187
SR-78	ESCONDIDO ASH STREET	1,740
SR-78	BANDY CANYON ROAD	931
SR-78	JCT. RTE. 67 SOUTHWEST	1,359
SR-78	WEST JCT. RTE. 79	342
SR-78	EAST JCT. RTE. 79	996
SR-79	JCT. RTE. 8	413
SR-79	JCT. RTE. 78	102
SR-79	JCT. RTE. 76 WEST	366
SR-94	BEGIN RTE AT JCT RTE 5 and EB ON FROM "G"	4,032
SR-94	SAN DIEGO, JCT. RTE. 805	7,293
SR-94	JCT. RTE. 125	5,328
SR-94	AVOCADO BOULEVARD	2,850
SR-94	JCT. RTE. 188 SOUTH	548
SR-94	JCT. RTE. 8	141
SR-125	EAST JCT. RTE. 94	6,468
SR-125	JCT. RTE. 8	1,826
SR-163	JCT. RTE. 5	3,300
SR-163	SAN DIEGO, JCT. RTE. 8	5,661
SR-163	SAN DIEGO, JCT. RTE. 805	6,031
SR-188	JCT. RTE. 94	659
I-805	SAN DIEGO, JCT. RTE. 5	2,255
I-805	TELEGRAPH CANYON ROAD	10,614
I-805	JCT. RTE. 54	14,700
I-805	SAN DIEGO, JCT. RTE. 15	13,620
I-805	JCT. RTE. 8	12,415
I-805	SAN DIEGO, JCT. RTE. 163	12,805
I-805	JCT. RTE. 52	12,958
SR-905	SAN DIEGO, JCT. RTE. 5	3,680
SR-905	JCT. RTE. 805	4,293

Table 2
San Diego County
2006 Truck ADT

Route	Junction	Truck ADT
SR-905	SIEMPRE VIVA ROAD	3,669

Source: SANDAG 2006

Table 3 presents those locations that have greater than 10,000 Truck ADT.

Table 3
San Diego County
2006 Truck ADT over 10,000

Route	Junction	Truck ADT
I-15	SAN DIEGO, POWAY ROAD	18,105
I-805	JCT. RTE. 54	14,700
I-805	SAN DIEGO, JCT. RTE. 15	13,620
I-15	VALLEY PARKWAY	13,206
I-15	ESCONDIDO, SOUTH JUNCTION OF CENTRE CITY	13,135
I-805	JCT. RTE. 52	12,958
I-805	SAN DIEGO, JCT. RTE. 163	12,805
I-805	JCT. RTE. 8	12,415
I-15	JCT. RTE. 163	10,966
I-15	SAN DIEGO, MIRAMAR/ POMERADO ROADS	10,942
I-805	TELEGRAPH CANYON ROAD	10,614
I-15	JCT. RTE. 8	10,590
I-5	BASILONE ROAD	10,500
I-5	JCT. RTE. 15 NORTH	10,300

Source: SANDAG 2006

Truck ADT is highest along the I-805 and I-15. There are only two intersections with over 10,000 Truck ADT on the I-5. The high volume locations would strongly suggest that they are not port or airport generated, they are border generated.

Warehousing

Warehousing and industrial land uses in San Diego County are concentrated at the border region. The facilities are typically in the 50,000 SF range.¹⁶

¹⁶ MCGMAP Task 3 Warehouses 2.doc.

County Specific Issues

San Diego formed a freight working group in 2005 to address goods movement issues. The Regional Freight Working Group (FWG) is comprised of local freight agency planning staff. The FWG provides input and assistance to SANDAG in the development of a Regional Freight/Intermodal Strategy. The Regional Freight Working Group will report to the SANDAG Transportation Committee. FWG membership consists of one representative from the San Diego County Regional Airport Authority, U.S. Department of Homeland Security – Custom and Border Protection Division, Metropolitan Transit System, North County Transit District, San Diego & Arizona Eastern Railway, San Diego Unified Port District, Caltrans; Kinder Morgan (a private pipeline company), and SANDAG¹⁷.

Mexico Trade Issues

Border backlogs

A reduction of border backlogs and bottlenecks is the top goods movement need in San Diego County. Limited gate capacity restricts the flow of freight through the border resulting in serious delays.

In 2005, inadequate infrastructure capacity created traffic congestion and delay that cost the U.S. and Mexican economies an estimated \$6 billion in gross output. Investment potential with the trucking industry is also curbed due to increasing delays at the border. Without improvements border delays will keep growing and the losses will more than double in the next ten years¹⁸.

The cost per crossing is presented below.

Table 4
Uncertainty and Customs Operations

Type of Cost	Minimum Cost	Maximum Cost
Primary Inspection	\$364.00	\$464.40
Secondary Inspection	\$795.30	\$1,199.00
Excess Plan Time	\$150.00	\$680.70
Reduced Cycle / Other	\$86.90	\$260.60
Driver Documentation	\$308.80	\$859.20
Cabotage	\$132.00	\$440.00
Total Border Wait Time and Uncertainty Costs	\$1,836.40	\$3,903.90

Source: Economic Impact of Wait Times at the San Diego-Baja California Border, Jan 19, 2006

¹⁷ Pathways For The Future: 2030 San Diego Regional Transportation Plan, November 2007, p. 6-38.

¹⁸ Economic Impact of Wait Times at the San Diego-Baja California Border, Jan 19, 2006

Goods are often exchanged between a maquiladora and the U.S. more than once. Partially assembled parts may cross the border three to four times¹⁹. The effect of border delays on this type of production seriously impact potential investment in cross border facilities.

Total impact to freight is summarized in Table 5.

Table 5
Cross-Border Freight-Economic Impacts Due to Delays at the Border for San Diego County, the State of California and the United States (in Millions of 2005 Dollars)

San Diego County		
Impact Category	From Direct Output Losses in...	Total Impact
Output (millions of U.S. dollars)	Agricultural and Food Products	-\$82
	Mining and Mineral Products	-\$129
	Machinery and Equipment	-\$193
	Manufactured Goods	-\$51
	Total	-\$455
Labor Income (millions of U.S. dollars)	Agricultural and Food Products	-\$22
	Mining and Mineral Products	-\$35
	Machinery and Equipment	-\$59
	Manufactured Goods	-\$16
	Total	-\$131
Employment (jobs)	Agricultural and Food Products	-532
	Mining and Mineral Products	-644
	Machinery and Equipment	-941
	Manufactured Goods	-343
	Total	-2,461
State of California		
Impact Category	From Direct Output Losses in...	Total Impact
Output (millions of U.S. dollars)	Agricultural and Food Products	-\$135
	Mining and Mineral Products	-\$215
	Machinery and Equipment	-\$289
	Manufactured Goods	-\$76
	Total	-\$716
Labor Income (millions of U.S. dollars)	Agricultural and Food Products	-\$35
	Mining and Mineral Products	-\$53
	Machinery and Equipment	-\$94
	Manufactured Goods	-\$23

¹⁹ Ibid

Table 5
Cross-Border Freight-Economic Impacts Due to Delays at the Border for San Diego County, the State of California and the United States (in Millions of 2005 Dollars)

	Total	-\$204
Employment (jobs)	Agricultural and Food Products	-887
	Mining and Mineral Products	-911
	Machinery and Equipment	-1,356
	Manufactured Goods	-499
	Total	-3,654
	United States	
Impact Category	From Direct Output Losses in...	Total Impact
Output (millions of U.S. dollars)	Agricultural and Food Products	-\$262
	Mining and Mineral Products	-\$357
	Machinery and Equipment	-\$493
	Manufactured Goods	-\$144
	Total	-\$1,256
Labor Income (millions of U.S. dollars)	Agricultural and Food Products	-\$64
	Mining and Mineral Products	-\$97
	Machinery and Equipment	-\$146
	Manufactured Goods	-\$43
	Total	-\$351
Employment (jobs)	Agricultural and Food Products	-1,873
	Mining and Mineral Products	-1,954
	Machinery and Equipment	-2,789
	Manufactured Goods	-1,031
	Total	-7,646

Source: Economic Impact of Wait Times at the San Diego-Baja California Border, Jan 19, 2006

Note: Mean Expected Outcomes

As described in Tables 5 and 6, the impact of these delays is not limited to San Diego or even California. The trade with Mexico that passes through the San Diego region has national and international impacts.

Table 6
Cross-Border Freight-Economic Impacts Due to Delays at the
Border for Baja California and Mexico
(in Millions of 2005 Dollars)

Baja California		
Impact Category	From Direct Output Losses in...	Total Impact
Output (millions of U.S. dollars)	Agricultural and Food Products	-\$296
	Mining and Mineral Products	-\$113
	Machinery and Equipment	-\$655
	Manufactured Goods	-\$252
	Total	-\$1,317
Labor Income (millions of U.S. dollars)	Agricultural and Food Products	-\$28
	Mining and Mineral Products	-\$17
	Machinery and Equipment	-\$70
	Manufactured Goods	-\$35
	Total	-\$150
Employment (jobs)	Agricultural and Food Products	-2,439
	Mining and Mineral Products	-568
	Machinery and Equipment	-1,227
	Manufactured Goods	-2,695
	Total	-6,929
Mexico		
Impact Category	From Direct Output Losses in...	Total Impact
Output (millions of U.S. dollars)	Agricultural and Food Products	-\$465
	Mining and Mineral Products	-\$178
	Machinery and Equipment	-\$1,030
	Manufactured Goods	-\$396
	Total	-\$2,069
Labor Income (millions of U.S. dollars)	Agricultural and Food Products	-\$44
	Mining and Mineral Products	-\$27
	Machinery and Equipment	-\$110
	Manufactured Goods	-\$54
	Total	-\$236
Employment (jobs)	Agricultural and Food Products	-3,833
	Mining and Mineral Products	-892
	Machinery and Equipment	-1,928
	Manufactured Goods	-4,235
	Total	-10,889

Source: Economic Impact of Wait Times at the San Diego-Baja California Border, Jan 19, 2006

Note: Mean Expected Outcomes

Additional capacity is needed at the border crossings and highways to meet current and future truck traffic.

As described in the Executive Summary, the following represents the region's key short and mid-term goods movement projects/strategies:

Table 7
MCGMAP Preliminary Projects/Strategies and System Improvements

Mode / System	Description	2007 Cost (Millions)	Committed Funds	Time-Frame (Short, Mid, Long)
Regional Goods Movement Projects/Strategies				
Border Crossing Improvements	Access Improvements to the California/Mexico Ports of Entry at Otay Mesa, Otay Mesa East, and Calexico East Projects	\$1,669	\$524	Short
County Goods Movement System Improvements				
Rail	Construct Coastal Rail Corridor	\$1,350		S, M
Rail	Construct South Line Rail/Trolley	\$328		S, M
Maritime	San Diego Port District Maritime Terminal Ground Access	\$822		S, M
Freeway / Highway	I-5 Widen/Managed Lanes (From La Jolla Village Dr. to Vandergrift)	\$962		S
Freeway / Highway	I-15 Managed Lanes & Operational Improvements (From SR-163 to SR-78)	\$608		S
Freeway / Highway	I-805 Widen/Managed Lanes (From SR-905 to I-5)	\$1,081		S
Freeway / Highway	San Diego International Airport Truck Access to I-5 (Truck Route/Interchange Improvements)	\$32		M
Freeway / Highway	Pipeline Truck Access to I-15 (Truck Route/Interchange Improvements)	\$32		M

Source: SANDAG 2007

Expansion in Mexico

Another issue with cross border trade deals with expansion of the volume of goods from the Mexican side of the border. There is a potential increase in maquiladoras and there is also the possibility of a port on the Pacific coast of Baja California.

The Otay Mesa – Mesa De Otay Port-of-Entry (POE) is the busiest commercial border crossing between California and Mexico. In 2006, this POE handled more than 1.4 million trucks and \$28.6 billion worth of goods in both directions, which represents the third highest dollar value of trade among all land and border crossings between the U.S. Mexico. Another \$1.2 billion in merchandise and more than 140,000 trucks crossed at the Tecate – Tecate POE.

Trade is the fastest expanding component of the San Diego regional economy. Mexico is the United States' third largest trading partner (after Canada and China) and California's number one export market. Inadequate and aging infrastructure and more stringent security requirements create congestion at these two commercial border crossings.

Any expansion in goods volume in Baja Mexico will influence San Diego as a significant portion of the goods are likely to be headed for the U.S. through the San Diego County border.

Maquiladora

Expansion of the maquiladora program will impact San Diego County. The markets in the U.S. and Mexico do provide a location to process the goods. It is reasonable to expect this exchange to increase.

The issue for goods movement is how much and how fast. The maquiladora program, however, is not without controversy. It is not within the scope of this discussion to address those issues, and much of what can be done is indirectly influenced by the U.S. The controversy of the program, however, adds other factors that make prediction difficult.

Mexican Port Expansion

A new seaport facility at Punta Colonet has been conceived and desired by overseas suppliers for a number of years. Goods suppliers overseas are frustrated by the existing back ups at POLA and POLB and are interested in alternatives. The volume predicted for Punta Colonet is comparable to that currently at the ports of Los Angeles and Long Beach, or 13 million TEUs per year²⁰.

The issue for San Diego County is that it will very likely be the entry point for goods to the U.S. The infrastructure in San Diego and the plans do not currently support such volumes. This is a longer

²⁰ Mexico plans an alternative to the jammed docks in L.A., Long Beach By Diane Lindquist UNION-TRIBUNE STAFF WRITER August 14, 2005

term issue as a port would need to be built and infrastructure put in place in Mexico to move the goods to the U.S. destined for San Diego and Southern California.

The facility would be among Mexico's biggest public works projects. The cost has been estimated at \$1.2 billion to \$2 billion, but proponents say as much as \$22.2 billion could flow into development of the region²¹. Given that these issues are related to foreign development there are no capital projects in the MCGMAP that directly address these issues. Additional improvement of POE's, and border access road and rail would be required if growth increases more than currently estimated. Border issues will likely be an area of continual concern for the foreseeable future. The SANDAG RTP does recognize this issue. Action 32 in the report is to "Evaluate the development of other interregional partnerships with other neighboring counties and Mexico to address land use and transportation needs"²².

Rail

There are three major generators of freight rail traffic in San Diego County; they are the Port of San Diego, northern Baja California Mexico, and regional San Diego freight. Accommodating the additional demands, which will be made upon the freight rail system, is essential in preventing diversion of even greater percentage of rail traffic to truck. This truck diversion would put an even greater strain on area freeways and truck routes. Maintaining rail as a cost effective alternative for the movement of heavy bulk goods is an important element in reducing freight congestion on regional highways.

The regional consumption rail traffic is expected to grow at a compound annual growth rate of 2 percent. The 2006 regional carloads were 12,000, and could increase to 22,500 by 2030. Incrementally, this traffic could increase by over 2000 carloads per year if a transload facility is built in San Ysidro.

Cross border traffic in 2006 included 6,000 carloads crossed at San Ysidro, and 3000 carloads of vehicles which were loaded at the BNSF Railway San Diego Auto Facility. With a 3 percent growth rate anticipated for this traffic, carloads could grow to 17,500 by 2030. Port traffic from automotive imports was approximately 10,000 carloads in 2006. Incremental growth of this traffic from expanded Port facilities could increase the carloadings to 20,000 carloads (150,000 vehicles) by 2030.

The results of the increases from these regional freight generators would result in an increase in rail carloads from 31,000 in 2006 to 60,000 in 2030, almost doubling in volume.

SANDAG is planning a rail network to ensure that all bottlenecks are dealt with and that capacity throughout the system is sufficient to handle the anticipated increases in traffic.

²¹ Ibid

²² SANDAG RTP 2006 Financial Constrained Update

To fulfill the requirement for additional rail capacity to handle the predicted growth, two areas must add rail capacity. The first area is improvements to handle the cross border rail traffic with Mexico, and the second area is improvements to the San Diego County portion of the LOSSAN Corridor.

Growth in cross border rail traffic will soon exceed the capacity of San Ysidro. The South Line rail projects include expanding the capacity of the San Ysidro yard from 100 to 196 cars, and increasing the mainline capacity of the South Line with signaling and safety improvements to increase the overall number of freight trains from 2 to 4. Together, these improvements would increase capacity from 10,000 annual carloads to approximately 19,600 annual carloads.

The additional demands from an expanded cross border rail infrastructure along with anticipated growth in the Port traffic need to be accommodated by the LOSSAN Corridor in San Diego, which handles all of the regions rail traffic. Double track and bridge improvements are planned to double the number of daily freight trains from 4 to 8. This additional capacity would be sufficient to handle the combined anticipated increases from regional, cross border, and Port freight rail demands.

There are projects in the MCGMAP requiring \$9.6 billion in rail improvements. Much of this is for short line and improvements near the border. The plan recognizes that this is a necessary investment requiring a significant funding level.

Port

The Port of San Diego Maritime Division has identified a number of capacity issues that influence its goods movement function. The port needs dredging and more terminal space, and landside access is also a challenge. The port location in the heart of downtown San Diego only serves to exacerbate congestion problems in moving goods using the road system. The current handler of rail freight is BNSF and it faces issues regarding shared mainline tracks which must simultaneously move goods and passengers out of San Diego.

The goal of improvements to the Port of San Diego includes providing some relief to the ports of Los Angeles and Long Beach. Much like the ports in Los Angeles County, the Port of San Diego anticipates a tripling of volume within the time frame of the MCGMAP.

There are \$1.9 billion dollars in maritime projects in the project list.

Pipeline

In the San Diego region, Kinder Morgan Energy Partners (a private company) is the sole provider of bulk freight transport by pipeline. The pipeline network runs between Orange, California and the Kinder Morgan Terminal located in Mission Valley. Kinder Morgan transports more than five million gallons of petroleum per day, the equivalent of more than 600 tank trucks carrying 8,700 gallons per truck. The region's volume of petroleum products shipped by pipeline is projected to continually increase, and new pipeline capacity would be required beginning in 2015. The region

needs to construct improved truck access to the pipeline terminal to reduce freeway hazards and improve the efficient delivery of petroleum products²³.

Air

The 2004 SDIA Airport Activity Forecasts projects air cargo tons to reach between 487,000 and 622,000 tons by 2030. The Global Gateways Development Program identified SDIA as one of the priority global gateways to California. The regions economy is at risk of losing 29.6 billion to 93.8 billion of Gross Regional Product by 2030 if airport facilities fall short of regional demand for passenger and cargo²⁴. The current site of San Diego International Airport provides limited options for expansion.

From a goods movement perspective, the basic solution to air cargo issues is a new airport. Obviously, a new airport has a wealth of associated issues that are beyond the scope of this study, and that has and will continue to impact how air cargo issues get resolved.

The Airport Site Selection Program is currently evaluating long-term solutions to meet projected 2030 commercial air passenger and cargo demand in the San Diego region²⁵.

The MCGMAP projects list has \$566 million in air cargo projects including the SDIA access to I-5 project at \$31.6 million. SANDAG has planned, to the extent possible, for a new airport location. RTP Actions 37 and 38 are as follows:

37) Complete the technical studies for the Airport Site Selection Program, and in 2006 place an advisory proposition on the countywide ballot regarding a proposed regional airport solution(s).

38) Adopt and implement the Airport Master Plan for San Diego International Airport in order to meet capacity needs for the next 20 years.

In response to Action 37, the November 7, 2006 ballot contained Proposition A 'The Commercial Airport' at MCAS Miramar San Diego County Regional Airport Authority advisory vote only. The ballot measure was:

Should Airport Authority and government officials work toward obtaining 3,000 acres at MCAS Miramar by 2020 for a commercial airport, providing certain conditions are met? It was defeated.

²³ Pathways For The Future: 2030 San Diego Regional Transportation Plan, November 2007, p. 38-39

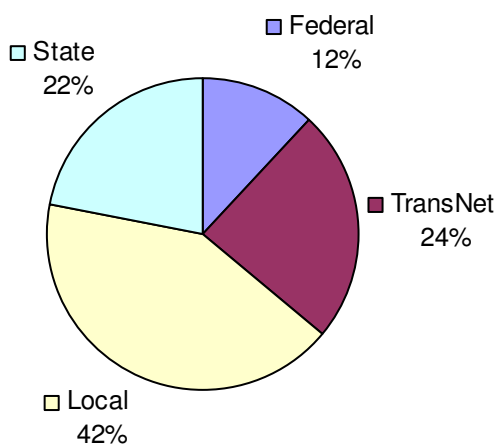
²⁴ SANDAG RTP 2006 Financial Constrained Update

²⁵ Ibid

Funding

Funding for projects is an issue for all counties. Major revenue source percentages for San Diego County are provided in Figure 6 below.

Figure 6
Major Revenue Sources/Revenue Constrained Scenario
(\$35.7 Billion)



Source: SANDAG RTP 2006 Financial Constrained Update

More specific revenue sources for the constrained RTP are provided in Table 8.

Table 8
Major Revenue Sources/Revenue Constrained Scenario

Revenue Sources	Estimated Revenue (\$ In Millions)				
		FY 2005- 2010	FY 2011- 2020	FY 2021- 2030	FY 2005- 2030
Local					
TransNet Cash		\$1,352	\$1,011	\$1,191	\$3,554
TransNet Bond Proceeds		\$351	\$3,518	\$1,192	\$5,061
Transportation Development Act (TDA)		\$691	\$1,402	\$1,718	\$3,811
City/Council Local Gas Taxes		\$613	\$892	\$720	\$2,225
General Fund/Misc. Local Road Funds		\$1,794	\$2,854	\$2,693	\$7,341
Toll Road Funding (SR-241)		\$350	\$150	\$0	\$500
Miscellaneous/Carryover from Prior Years		\$850	\$93	\$88	\$1,031
	Subtotal	\$6,001	\$9,920	\$7,602	\$23,523
State					
State Transportation Improvement Program (STIP)					
Traffic Congestion Relief Program (TCRP)		\$425	\$608	\$820	\$1,853
Proposition 42		\$103	\$455	\$520	\$1,078
State Transit Assistance (STA) Program		\$104	\$182	\$191	\$477
State Highway Account Funds for Operations & Maintenance (O&M) Rehab		\$750	\$1,396	\$1,465	\$3,611
Miscellaneous/Carryover from Prior Years		\$435	\$178	\$200	\$813
	Subtotal	\$1,817	\$2,819	\$3,196	\$7,832
Federal					
Federal Transit Administration (FTA) Discretionary		\$243	\$42	\$52	\$337
Federal Transit Administration Formula		\$375	\$707	\$808	\$1,890
Regional Surface Transportation Program (RSTP)/ Congestion Mitigation and Air Quality (CMAQ) Program		\$354	\$530	\$454	\$1,338
Miscellaneous/Carryover from Prior Years		\$402	\$172	\$197	\$771
	Subtotal	\$1,374	\$1,451	\$1,511	\$4,336
Total		\$9,192	\$14,190	\$12,309	\$35,691

Source: SANDAG RTP 2006 Financial Constrained Update

Funding Challenges and Economic Impacts for Goods Movement Projects

Since the passage of the North American Free Trade Agreement (NAFTA), the volume of trucks to and from Mexico has more than doubled. Currently, there are 1.6 million trucks through the San Diego Ports of Entry at Otay Mesa and Tecate. This volume is projected to double by 2025. To address the congestion and bottlenecks through local communities, the San Diego County and Imperial County regions have completed critical highway and border crossing infrastructure improvements. However, they are still facing short-falls in funding for additional improvements that would add capacity to highways and land crossings that serve border trade as well as other interregional trade through California. To address funding options, San Diego and Baja California, Mexico stakeholders are investigating the potential for use of public funds together with private financing and toll fees for a new border crossing, highways, and federal inspection staffing at East Otay Mesa, California / Mesa de Otay, and Baja California, Mexico²⁶.

Toll crossings were investigated in “Economic Impacts of Wait times at the San Diego – Baja California Border” (Jan 19, 2006). The survey in the report indicated that most users would opt for a toll crossing if it would reduce delays. The users surveyed were not restricted to freight movers. Companies moving freight however do take advantage of toll roads in Mexico when they reduce the time in shipment. They also invest in programs like Free and Secure Trade (FAST) and Empresa Certificada to facilitate border crossing. Indications suggest that tolls are a potential source for revenue. All indications imply that firms would pay a toll if they saw that the expenditure will reduce delays and ultimately the bottom line.

²⁶ Caltrans District 11

County Actions

The county projects for the MCGMAP are presented in Table 9 below. These projects are extracted from SANDAG's 2007 RTP.

Table 9
MCGMAP Projects San Diego County

System/Project Description	Estimated Cost (millions)
Road/Truckway	
I-15 Improvements, SR-52 to Lake Hodges	\$83.0
I-805, Widen/ML SR-54 to SR-52	\$631.0
I-805, Widen/ML, SR-52 to Carol Cyn Rd to I-5	\$421.0
I-805, Widen/Managed Lanes SR-905 to I-5	\$1,801
I-15 Widen/ML, SR-163 to SR-56	\$426.0
I-805, Widen/ML SR-905 to SR-94	\$884.0
I-5, Widen/Managed Lanes (La Jolla Village Dr. To Vandergift)	\$962.0
I-15 Widen/Managed Lanes & Operational Improvements (From SR-163 to SR-78)	\$608
I-15 Widen/ML, Ctr City Pkwy to SR-78	\$215.0
I-15 Widen/ML SR-56 to Ctr City Pkwy	\$427.0
I-15, Widen/HOV SR-94 to SR-163	\$265.0
I-5, Widen I-805 to SR-56	\$186.0
I-5, J to Sea World Drive, SR-54 to I-8	\$1,159.0
I-15 Widen/HOV	\$300.0
I-15 Improvement, SR-52 to SR-78	\$19.0
SR-125, SR-905 to San Miguel Rd	\$640.0
SR-125, San Miguel Rd to SR-54	\$200.0
SR-125, Tele Canyon to San Miguel Rd	\$130.0
I-15/I-805, HOV/ML Connectors	\$66.0
SR-54/125/52 Outer Loop Extension to SR-78	\$540.0
SR-52, I-805 to SR-125	\$330.0
SR-52, Widen SR-125 to SR-67	\$446.0
I-15/SR-94, S/W-E/N Connectors	\$140.0
SR-94, Widen/HOV I-5 to I-805	\$200.0
SR-94/SR-125 W/N-S/E Connectors	\$150.0
SR-54/SR-125, Widen/HOV I-805 to SR-94	\$111.0
SR-94, Widen/HOV	\$190.0
Pipeline Truck Access (Petroleum Terminal) to I-15 (Truck route/Interchange improvements)	\$32
Air Cargo	
San Diego International Airport Access to I-5 (Truck route/interchange improvements)	\$32

Table 9
MCGMAP Projects San Diego County

System/Project Description	Estimated Cost (millions)
Future Expansion, Fwy/Grd Access	\$173.2
SDIA, Aircraft/Ground Access, AC Facilities, Transload	\$110.7
Future Expan., Air/Grd Access, AC Facilities, Transload	\$250.0
Pipeline	
I-15 Access to KM MV Terminal	\$31.6
KM, New Miramar Junction/Terminal/Tanks	\$39.5
KM Expand to 16 Pipe/Extend to Mexico	\$45.0
Maritime	
San Diego Port District Marine Terminal Ground Access	\$822
NCMT Capacity and Operational Improvements - Access, Rail, Wharf, Decking and Realignment	\$183.1
TAMT Capacity and Operational Improvements - Ground Access and Realignment	\$357.1
Port Expansion (250 acres on-dock/inland port)	\$282.8
Port Expansion (350 acres on-dock/inland port)	\$350.0
Port Expansion (200 acres on-dock/inland port)	\$189.8
Port Expansion (500 acres on-dock/inland port)	\$500.0
Rail	
Construct Coastal Rail Corridor	\$1,350
Construct South Line Rail/Trolley	\$328
Mex Rail Rehabilitation, Maquilla Spur, Transload	\$31.6
Logistics Center - Maquilla Area	\$57.9
Coastal - Logistics Center - Miramar Landfill/Mid-County	\$60.0
Logistics Center, South County	\$60.0
Coastal - Logistics Center - I-5NW	\$50.0
Logistics Center - Southeast County, Otay Mesa (2x)	\$131.1
Logistics Center - I-15 Northeast County	\$50.0
South Line, San Ysidro Yard Improvement 3	\$84.8
Sprinter - Improvements	\$484.0
Desert Line - Basic Service	\$15.8
Mex Rail, Mainline Capacity Improvements	\$176.0
South Line, Otay Mesa Rail Spur/Inland Port	\$86.8
Desert Line - Modernization	\$166.1
High Speed/Inland Rail - North County	\$1,850.0
High Speed/Inland Rail - South County	\$1,600.0
High Speed/Inland Rail - Connect to Port	\$180.0
Sprinter Double Tracking - Planned	\$199.0
Desert Line Double Tracking	\$2,130.0
Coastal, Del Mar/Miramar Hill Tunnel	\$475.0

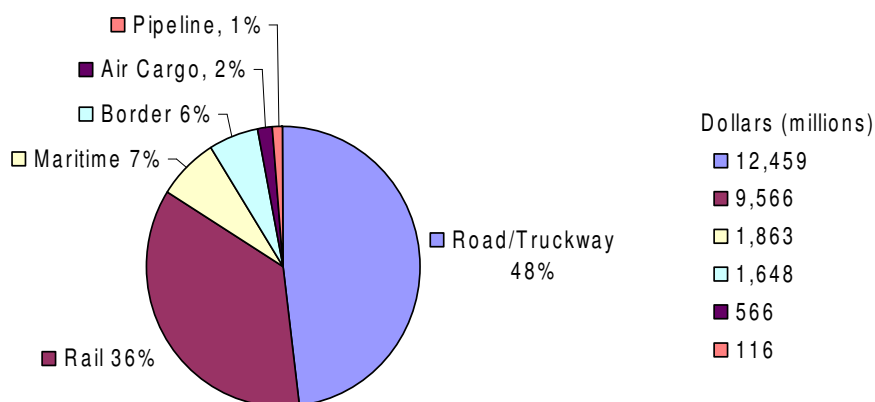
Table 9
MCGMAP Projects San Diego County

System/Project Description	Estimated Cost (millions)
Border	
OME Border Crossing SR-905-8F SR-11-4T, So. Truck Rte	\$1,498.0
OME Border Crossing - Rail	\$150.0
Total	\$26,217.1

Source: SANDAG 2007 Regional Transportation Plan, p. B-5.

Road and truckway improvements are approximately \$12.5 billion, which is almost half the estimated expenditure. Rail improvements are \$9.6 billion, 36 percent of the total. The two categories account for approximately 85 percent of the total estimated expenditures. The percentage of total expenditures by the major infrastructure categories are shown in Figure 7.

Figure 7
Project Estimated Costs by Infrastructure Categories



Source WSA 2007.

Although Maritime, Border, Air Cargo, and Pipeline projects do not account for a large percentage of total expenditures, projects within these categories are some of the highest priority.

The Border category has one of the projects with the highest priority. It is:

- ◆ OME Border Crossing SR-905-8F SR-11-4T, So. Truck Rte

Maritime has three projects in the top ten. These are:

- ◆ NCMT Capacity and Operational Improvements – Access, Rail, Wharf, Decking and Realignment.
- ◆ TAMT Capacity and Operational Improvements – Ground Access and Realignment
- ◆ Port Expansion (250 Acres on-dock/inland port)

Air Cargo has one project in the top ten.

- ◆ SDIA Access to I-5

Finally the pipeline category also has one project in the top ten.

- ◆ I-15 Access to KM MV Terminal

The Road/Truckway and Rail modes do have high priority projects as well. Improvement in each modal sector is recognized as critical to systematic goods movement in San Diego County.

Trade Corridor Infrastructure Fund (TCIF)

Approved by voters as Proposition 1B in November 2006, the TCIF represents \$2 billion for highway, freight rail, seaport, airport, and border access infrastructure improvements along corridors that have a high volume of freight movement. A list of projects were adopted by the California Transportation Commission (CTC) in April 2008. Allocations are pending state budget approval. The list below represents the adopted program of projects for the San Diego Border Region.

The San Diego/Border Region's TCIF project proposals reflect a Gateway approach which is systemic; the approach recognizes that goods movement is facilitated by multi-modal investments contributing to freight network integration. The region's TCIF strategy also targets investments which will alleviate goods movement-related environmental and community impacts. The region's TCIF projects also have been screened and selected for their contribution to regional and statewide prosperity. In San Diego County, there are two gateways that accommodate domestic and international trade: the border Ports of Entry (POEs), principally the existing Otay Mesa and Tecate POEs and the proposed new Otay Mesa East POE, as well as the seaport gateway, the Port of San Diego. Growing trade volumes at the region's two gateways drive the need for highway and rail network improvements.

The San Diego/Border Region's TCIF proposals integrate strategic investments at the border, at the Port of San Diego and on the associated highway and rail distribution networks serving both trade Gateways. This investment strategy produces benefits to the highway and rail networks that link the San Diego region with the rest of California. Without these TCIF investments, the trade not facilitated in the region would be forced to other congested and environmentally stressed gateways. The San Diego/Border Region's TCIF projects provide the necessary infrastructure to handle current and projected freight needs at the border and at the Port of San Diego Gateways.

Table 10
Adopted Program of Projects
San Diego Border Region

Project Title	Total Project Cost (in thousands)	Recommended TCIF Funding (in thousands)
BORDER		
State Route 905	\$104,700	\$ 91,605
State Route 11 and Otay Mesa East Port of	\$708,820	\$75,000
MARITIME		
Bay Marina Drive at I-5 At-Grade Improvements	\$2,380	\$910
10th Avenue at Harbor Drive Grade-Separated	\$67,200	\$30,910
32nd Street at Harbor Drive Grade-Separated	\$118,460	\$50,665
Civic Center Drive at Harbor Drive and I-5 At-	\$3,260	\$1,150
Port of San Diego National City Marine Terminal	\$34,300	\$15,000
RAIL		
South Line Rail Improvements / San Ysidro	\$40,460	\$25,900
South Line Rail Improvements / San Ysidro	\$107,030	\$98,060
LOSSAN North Rail Corridor - Sorrento to	\$23,700	\$10,800
TOTAL	\$1,210,310	\$400,000*

Source: SANDAG, 2008

*CTC Recommended Programming Target for San Diego Border Region = \$400,000

Conclusions

The projects and actions that San Diego County is currently doing or planning to do fall within the four primary action sets of the MCGMAP. The purpose of this section is to show a relationship between county projects developed independent of a regional plan and the recommended primary actions of the MCGMAP. The four action sets in the MCGMAP are:

- ◆ Action Set 1: Accelerate Regional Environmental Mitigation
- ◆ Action Set 2: Relieve Congestion and Increase Mobility
- ◆ Action Set 3: Improve Operational Efficiency
- ◆ Action Set 4: Develop Equitable Public/ Private Funding Strategy

A brief description of each action set and how it relates to county activities and projects is provided below.

Action Set 1: Accelerate Regional Environmental Mitigation seeks to mitigate environmental impacts at three levels. The levels are a broad regional approach, regional conformity, and project specific mitigation. The regional approach is for broad strategic policies/efforts focusing on further reducing region-wide impacts. Regional conformity holds emissions to caps set in various plans through aggressive actions implementing known technologies and best practices. The project specific mitigation requires project sponsors to consider and disclose environmental impacts when planning projects and to address how potential impacts will be resolved. This part of the project development process is specified in the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA).

Any plans discussed in this county action plan when they reach the CEQA/NEPA part of the planning stage, will disclose environmental impacts that are a direct impact of the action and provide measures to resolve the impact. This is by no means a minor contribution to improving the environment, especially at the local level. The more regional effect however would be how the planned actions help to satisfy regional conformity. In addition, linking county-specific projects to broader regional initiatives, even long-term plans, will assist in developing future policies/efforts to address region-wide impacts.

All the freeway lane and capacity improvements in the San Diego project list will improve mobility and therefore reduce mobile source emissions. These will assist San Diego County to continue to meet conformity goals. It would be rather redundant to discuss each of these projects as there are some 26 of them that improve freeway and freeway access. It should be noted that the projects may have local impacts that are not addressed within this regional goods movement framework. They will need to meet CEQA/NEPA requirements.

San Diego County is unique in the study area as its conformity goals are not addressed by the same agency as the other 6 counties. SCAG has responsibility for conformity in all the other counties, while SANDAG is responsible in San Diego County.

There are recent examples of San Diego County's efforts to reduce environmental impacts of goods movement. In the initial Clean Port efforts by the Port of San Diego, an inventory of emissions and energy use at the maritime terminals is being prepared as an initial step in developing a plan with public participation to address methods to reduce emissions and energy waste²⁷. In 2003 the SANDAG Central I-5 Corridor Study, evaluated truck ground access improvements for the Port of San Diego's two terminals to address resident concerns about truck noise and emissions. In 2007, the Port of San Diego used a state planning grant to select an alignment for truck access that enjoys full community and business support²⁸.

²⁷ Pathways For The Future: 2030 San Diego Regional Transportation Plan, November 2007, p. 6-44.

²⁸ Pathways For The Future: 2030 San Diego Regional Transportation Plan, November 2007, p. 6-45.

Action Set 2: Relieve Congestion and Increase Mobility focuses on improving all aspects of the transportation system in order to improve region-wide mobility and safety. Specifically the action set seeks to:

- ◆ Increase intermodal lift capacity
- ◆ Increase mainline rail capacity
- ◆ Grade separate railroad crossings
- ◆ Improve highways through comprehensive innovative approaches
- ◆ Continue with general purpose highway improvements/ safety and operational improvements

All the infrastructure categories have projects that will provide market segment relief and increased mobility. Freeway, air cargo, maritime, rail, and border improvements will provide relief to all modes of freight transport.

The county has many issues it must address like a new airport, improved port facilities, and border delays. There is a long way to go to address all the issues associated with goods movement but the projects listed as county actions are moving San Diego in the right direction.

Action Set 3: Improve Operational Efficiency addresses two categories of actions. These are:

- ◆ Improve marine terminal productivity, truck turn times, and intermodal operations
- ◆ Improve highway operations through new technologies

These improvements would make the most of existing infrastructure by making the utilization more efficient.

The project list includes \$1.8 billion in maritime improvements

Action Set 4: Develop Equitable Public/Private Funding Strategy recognizes that implementation of the actions, projects, and programs with the associated mitigations will require a coordinated effort by the private and public sectors. The action set seeks to:

- ◆ Maximize the study area's fair share of state and federal funds
- ◆ Identify opportunities for project-specific user needs
- ◆ Establish institutional structure for managing user fees and revenues
- ◆ Initiate supportive legislation

SANDAG is addressing these issues. For example, they have taken a major step in addressing some of the border issues by conducting a study of the economic impact of delays at the border. To adequately address fair share it is important to understand the dynamic, and this study has increased the agencies knowledge about this issue which is critical to goods movement.

In addition the RTP has general legislative and funding actions that seek the counties fair share of public funds and work to improve partnering and coordination.

To maintain economic vitality the region needs to provide a competitive advantage in terms of the speed and reliability of moving goods to U.S. markets while mitigating environmental impacts to the region. All the projects in the county ultimately are designed to insure that Southern California maintains if not enhances its economic position. Maintenance of the regions economic vitality will be enhanced by the actions being done in San Diego County.